

WHAT IS CLAIMED IS:

1. A pressure-regulating device for regulating interior pressure in a container in which gas is contained, the container having a vent hole through which the gas is vented, the pressure-regulating device comprising:

5 an electrical control unit for outputting a voltage;

a deformable member coupled to the electrical control unit, wherein the voltage causes the deformable member to generate a corresponding deformation; and

10 an adjustment member disposed on the deformable member and opposite to the vent hole, wherein the deformation causes the adjustment member to generate a corresponding displacement, and causes the vent hole to open or close according to the displacement of the adjustment member so that the interior pressure of the container may be regulated.

15 2. The pressure-regulating device according to claim 1, wherein the deformable member is a piezoelectric sheet.

3. The pressure-regulating device according to claim 1, wherein the deformable member is a laminated piezoelectric sheet.

4. The pressure-regulating device according to claim 1, wherein the

deformable member is a bi-metallic sheet.

5. The pressure-regulating device according to claim 1, wherein the deformable member is a memorizing alloy sheet.

6. A pressure-regulating device for regulating interior pressure of a container in which gas is contained, the container having a vent hole through which the gas is vented, the pressure-regulating device comprising:

an electrical control unit for outputting a voltage; and

- 10 a deformable member coupled to the electrical control unit and located in the vent hole, wherein the voltage causes the deformable member to generate a corresponding deformation for causing the vent hole to open and close so as to regulate the interior pressure of the container.

7. The pressure-regulating device according to claim 6, wherein the deformable member is a piezoelectric sheet.

- 15 8. The pressure-regulating device according to claim 6, wherein the deformable member is a bi-metallic sheet.

9. The pressure-regulating device according to claim 6, wherein the deformable member is a memorizing alloy sheet.

10. A pressure-regulating device for regulating interior pressure of a

container in which gas is contained, the container having a vent hole through which the gas is vented, the vent hole is formed with a recess, the pressure-regulating device comprising:

an electrical control unit for outputting a voltage; and

- 5 a deformable member coupled to the electrical control unit, located in the vent hole and covering the recess, wherein the voltage causes the deformable member to generate a corresponding deformation for causing the vent hole to open or close so as to regulate the interior pressure of the container.

10 11. The pressure-regulating device according to claim 10, wherein the deformable member is a piezoelectric film.

12. The pressure-regulating device according to claim 10, wherein the deformable member is a bi-metallic film.

13. The pressure-regulating device according to claim 10, wherein the 15. deformable member is a memorizing alloy film.

14. The pressure-regulating device according to claim 10, wherein an air chamber is formed between the recess and the deformable member.

15. A pressure-regulating device, comprising:

an elastic member having a surface with a vent hole;

an electrical control unit for outputting a voltage; and

a deformable member coupled to the electrical control unit and the elastic member, a chamber for containing gas being formed between the deformable member and the elastic member, wherein the gas may be vented out of the chamber through the vent hole, wherein the voltage causes the deformable member to generate a corresponding deformation for causing the elastic member to move the vent hole close to or away from the deformable member so as to regulate the interior pressure of the chamber.

5 16. The pressure-regulating device according to claim 15, wherein the elastic member is a metal sheet.

10 17. The pressure-regulating device according to claim 15, wherein the deformable member is a piezoelectric sheet.

18. The pressure-regulating device according to claim 15, wherein the deformable member is a bi-metallic sheet.

15 19. The pressure-regulating device according to claim 15, wherein the deformable member is a memorizing alloy sheet.

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